

NOMENCLATURAL NOTES ON POLISTINAE
(HYMENOPTERA: VESPIDAE)

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Abstract.—Correct nomenclature is supplied for certain genus-group names of paper wasps. The infrasubgeneric names of Saussure (1852-58) were made available in 1985 from the original dates of publication. *Alpha* Saussure, 1854, is thus a senior synonym of *Hypopolybia* Richards, 1978; *Phi* Saussure, 1854, is a senior synonym of *Monocyttarus* Richards, 1978. *Trichinothorax* is newly proposed as a replacement name for *Trichothorax* Richards, 1978, *non* Montrouzier, 1860. *Agelaiia* Lepeletier, 1836, is a senior synonym of *Stelopolybia* Ducke, 1910.

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During the course of various studies on the paper wasps, certain nomenclatural problems became apparent to both authors. The purpose of this note is to correct the nomenclature of the genus-group names.

GREEK LETTERS

The difficulties stem in large part from the infrasubgeneric names proposed by Saussure. In Volume 2 of his great work, *Études sur la Famille des Vespides* (1852-58), Saussure recognized 13 genera in the tribe "Vespiens" (a taxon equivalent to the Vespidae of Richards 1962). He divided the genus *Polybia* Lepeletier into two subgenera, *Clypearia* and *Polybia* "proprement dites," and subdivided the latter into seven "divisions." These divisions were *Alpha*, *Iota*, *Phi*, *My*, *Kappa*, *Omega* and *Parapolybia*. Subsequently, Saussure (1863) recognized *Pseudopolybia* as a division of the genus *Polybia*.

Volume 2 of "Études" was published between 1853 and 1858; the divisions were proposed in 1854 (see Griffin 1939). Shortly

thereafter, both *Alpha* and *Phi* were used again by Saussure in Volume 3 of "Études" (1854-1856; the part mentioning these names appeared in 1855). The names were applied to divisions of the eumenine genus *Eumenes* (p. 137 and 145, respectively), and *Alpha* was further used for a division of *Montezumia* (p. 160). Other names derived from Greek letters were used for divisions of genera in this work. *Delta*, *Epsilon*, *Omicron* and *Zeta* are currently applied to eumenine genera, and *Beta* was also used in both *Eumenes* and *Montezumia* (see Carpenter 1986). Saussure applied these names to divisions first delineated in Volume 1 of "Études" (1852-1853), where they had been referred to by Roman numerals. In Volume 1, Saussure also delineated sections of some of these divisions. These were referred to typically by capital letters or arabic numerals, but in *Zethus* he also used the letters "α" and "β." This practice was continued throughout the "Études." From this it is plain that Saussure was merely hierarchically partitioning his genera according to the prin-

ciples of Aristotelean division, and did not consider these names to be validly proposed. As explained in a footnote on p. 167 of Volume 2, he began applying "arbitrary" names instead of numerals in order to facilitate interpolation of new taxa into his classification, without the necessity of renumbering. Nevertheless, the criteria of availability now in the International Code of Zoological Nomenclature make it clear that these names, even if proposed unintentionally, are available.

Subsequent to Saussure, Dalla Torre (1894: 161) treated *Pseudopolybia* as a genus, and Bingham (1897: 382) did the same for *Parapolybia*. Dalla Torre (1904: 76) listed the other polistine secondary names as divisions of his subgenus *Eupolybia*, but otherwise these names were generally ignored. Then Bequaert (1933: 112) transferred *Kappa* and *Omega* to the synonymy of *Mischocyttarus* Saussure, and designated a type species for the former. Richards (1941) subsequently raised them to subgenera. Later, Bequaert (1944a: 99) fixed the identity of *Alpha* by designating a type species, and Bequaert (1944b: 292) did the same for *My* (as *Mu*) and *Phi* by designating type species for them. Finally, Richards (1978: 33) selected a type species for *Iota*. However, it was Richards' monograph which crystallized the present problem.

The International Code of Zoological Nomenclature in force prior to 1985 did not treat infrasubgeneric names as available. As mentioned above, Saussure described numerous "divisions" of subgenera in his *Études*, especially in the eumenine genus *Odynerus*. When the present trend of splitting this genus was begun 50 years ago by Blüthgen (1938), these divisions gradually came to be treated as genera (see Carpenter and Cumming 1985, and Carpenter 1986). In order to fix their status, van der Vecht (1967) sought an Opinion ruling these names as available from their original dates of publication, with original authorship. Opinion 893 (ICZN 1970) so ruled.

Richards (1978) did not follow this course in Polistinae. While stating correctly that infrasubgeneric names had no nomenclatural status under the Code in force at that time, he misunderstood van der Vecht's treatment of the analogous case in Eumeninae, which Richards erroneously stated as pertaining to *primary* divisions of genera. Of course, van der Vecht's proposal would have been unnecessary if this were true! Following the Code, Richards treated the names as first made available when they were given nomenclatural standing by subsequent authors, either as subgenera or by designation of type species, with these later workers as authors of the names. Thus he attributed *Parapolybia* to Bingham (1897), *Pseudopolybia* to Dalla Torre (1894), and *Kappa*, *Omega* and *Alpha* to Bequaert (1933) [*Alpha* should have been cited as dating from Bequaert 1944a]. Under this procedure Richards treated *Omega* as a junior objective synonym of *Monacanthocnemis* Ducke, 1905 in his subgeneric arrangement of *Mischocyttarus*. Richards' classification was therefore inconsistent with the precedent established in Vespidae by van der Vecht.

It is unfortunate that Richards misconstrued the situation, although to have followed van der Vecht's precedent would have required submission of another case to the Commission. However, no argument on the point is now required. Under Art. 10(e) of the revised International Code of Zoological Nomenclature, secondary divisions are valid as genus-group names from their original date of publication, with original authorship. Richards' classification must therefore be amended. Richards himself, in a list of errata and addenda to his monograph published in 1983, reversed his stance in part, accepting Saussure's authorship of *Pseudopolybia* and *Omega*. In addition, Richards (1978), although citing Bequaert (1944b), overlooked that that author had designated type species for *Phi* and *My*, and as a result Richards' subgenus *Monocyttarus* is a junior subjective synonym. Thus,

Alpha and *Phi* become valid names for current subgenera of Polistinae and preoccupy the use of these names in the Eumeninae (Carpenter 1986). The corrected synonymies of the relevant taxa are listed below. But first two unrelated matters must be addressed.

HOMONYMY

Richards proposed a subgeneric classification of *Polybia* in his monograph. The naturalness of his arrangement remains to be investigated, but that aside, one of his subgenera is a junior homonym. As pointed out by Day (1979), *Trichothorax* Richards, 1978 is preoccupied in Coleoptera (by Montrouzier 1860). A replacement name is herewith proposed. This name is the replacement intended by Richards, as shown by an unpublished manuscript at the British Museum.

THE IDENTITY OF *AGELAIA* LEPELETIER

The final matter concerns *Agelaia fuscicornis* Lepeletier, 1836. Since its proposal this taxon has been unrecognized. Saussure (1854: 210) placed it in *Polybia*, while pointing out the similarity in color of its description to that of *Apoica pallida* and *Polybia testacea* (now in *Stelopolybia*). Following him Dalla Torre (1894: 161) placed *Agelaia* in the synonymy of *Polybia*. However, Bequaert (1944b: 254) suggested that it may have been a *Polistes*. After success in identifying *Aphanilopterus* Meunier from its description (see Richards 1978: 437), J. van der Vecht inquired whether one of us (MCD) might also be able to identify *Agelaia*. It was determined that the description almost certainly applies to *Stelopolybia testacea* (F.). The evidence for this is outlined next.

Lepeletier (1836: 535) described *Agelaia* as a member of his fourth family, "Les Polistides." He mentioned (p. 536) that nothing was known of its habits, nevertheless the name was derived from the Greek for "Vivant en société." The placement of *Age-*

laia, in between *Polybia* and *Apoica*, and the similarities in the details of the descriptions of these taxa, indicate that *Agelaia* must be a social wasp. Lepeletier stated that the collecting locality was unknown, but the color pattern he described, largely ferruginous with the posterior part of the metasoma blackish, is that of a well known South American mimicry complex and does not occur elsewhere. Three South American social wasps with this color pattern and of the right size (10 lines, or approximately 21 mm, cf. Mayr 1969) are known to us: *Stelopolybia testacea*, *Mischocyttarus flavicans* and *Polistes testaceicolor*. Two solitary vespids of similar color pattern and size (*Pachymenes orellanae* and *Montezumia analis*) may be dismissed because the clypeus is not angular below. Only the *Stelopolybia* matches the description of the metasomal petiole. The petiole is described as almost conical and tuberculate laterally. The metasoma of *Polistes testaceicolor* is as in other species of this genus described by Lepeletier: ". . . sans pédicule distinct; son premier segment se dilatant en cloche dès sa base." The petiole in *Mischocyttarus flavicans* is elongate, as in the species of *Apoica* described by Lepeletier. The second submarginal cell ("cubitale") in *Agelaia* is described as scarcely narrowed towards the marginal ("radiale") cell and little dilated towards the discal cell. Saussure (1854: 210) considered this feature the main obstacle in identifying *Agelaia fuscicornis* as *Stelopolybia testacea*. Saussure characterized the latter species as having this cell strongly ("entièrement") narrowed, as in other paper wasps. Lepeletier was possibly in error, however the cell in *S. testacea* is narrower posteriorly relative to the other two species, and so it appears less narrowed anteriorly. If this interpretation is correct, the only discrepancies concern the color pattern. The antennae are described as blackish above, and the second metasomal segment as blackish on the posterior third. Most specimens of *Stelopolybia testacea* which we have seen have the joints

between the flagellomeres slightly darkened, but the antennae are otherwise ferruginous, and the second metasomal tergum has a ferruginous band apically. However the antennae do appear blackish if viewed with the naked eye, and the extent of black and ferruginous on the second tergum varies greatly. We regard these discrepancies as minor compared to the general correspondence to the description. In the absence of the original material there can be no absolute certainty, but the description appears adequate to recognize this taxon. *Agelaia fuscicornis* Lepeletier, 1836 is thus considered here a junior synonym of *Stelopolybia testacea* (F., 1804).

This resolution of the identity of *Agelaia* creates another problem. *Agelaia* Lepeletier, 1836 is a senior synonym of *Stelopolybia* Ducke, 1910. We regard replacement of the name *Stelopolybia* by *Agelaia* with equanimity, since we believe that stability is best served through strict application of the Principle of Priority. We do not think this replacement will cause more than temporary confusion, and the situation will henceforth be stable. However, other workers may disagree, in which case an appeal to the Commission for suppression of *Agelaia* under the plenary powers should be made. Were adoption of *Agelaia* the only change required in an otherwise stable nomenclature, more force might accrue to an argument for suspension of the rules. In particular, we note with interest that the majority of changes necessitated here arise from the Commission's recent adoption of revised criteria of availability with respect to infrasubgeneric names. It would have been so easy to make these criteria dependent on previous accepted usage for extant names!

CORRECT SYNONYMY

Polybia Lepeletier, 1836: 533. Type species *Polistes liliacea* F., 1804. By subsequent designation of Ashmead, 1902: 166.

subgenus *Polybia*

Iota Saussure, 1854: 174, explanations

to plates 22 and 24 (as division of subgenus *Polybia*). Type species "*Polybia liliacea* (F.)." By subsequent designation (Richards 1978: 33) under Art. 67(f).

Jota Dalla Torre, 1894: 161. Unjustified emendation of *Iota*. * **New synonymy.**

Eupolybia Dalla Torre, 1904: 76. New name for *Polybia*. Type species "*Polybia liliacea* (F.) (= *Polistes liliacea* Fabricius, 1804)." By subsequent designation of Richards, 1978: 33.

Iota Richards, 1978: 33, 46; *non Iota* Saussure, 1854. Unjustified emendation of *Jota*. Unavailable under Art. 11e.

subgenus *Alpha* Saussure, 1854: 167, explanations to plates 21 and 22 (as division of subgenus *Polybia*). Type species *Polybia bifasciata* Saussure, 1854. By subsequent designation of Bequaert, 1944a: 99. **New status.**

Hypopolybia Richards, 1978: v, 35, 52 (subgenus of *Polybia*). Type species *Polybia bifasciata* Saussure, 1854. Original designation. **New synonymy.**

subgenus *Myrapetra* White, 1841: 320. Type species *Myrapetra scutellaris* White, 1841. By indication (monotypic).

Myrapetra Saussure, 1854: 192, 194, 211, 249. Incorrect subsequent spelling of *Myrapetra*.

My Saussure, 1854: 191, explanation to plate 23 (as division of subgenus *Polybia*). Type species *Myrapetra scutellaris* White, 1841. By subsequent designation (Bequaert 1944b: 292) under Art. 67(f).

Mi Dalla Torre, 1904: 76. Unjustified emendation of *My*. **New synonymy.**

Mu Bequaert, 1944b: 292. Unjustified emendation of *My*. **New synonymy.**

* Note that unjustified emendations are available names (Art. 33b(iii)).

- subgenus *Trichinothorax* **new name** for *Trichothorax* Richards, 1978, q. v.
- Pseudopolybia* Ihering, 1896: 452, junior homonym of *Pseudopolybia* Saussure, 1863. Type species *Polistes ignobilis* Haliday, 1836. By subsequent designation of Bequaert, 1933: 112.
- Trichothorax* Richards, 1978: v, 35, 101 (subgenus of *Polybia*); *non* Montrouzier, 1860: 235. Type species *Vespa chrysothorax* Lichtenstein, 1796. Original designation.
- Trichthorax* Snelling, 1981: 416. Incorrect subsequent spelling of *Trichothorax*.
- Mischocyttarus* Saussure, 1853: 19. Type species *Zethus labiatus* Fabricius, 1804. By subsequent designation of Ashmead, 1902: 166.
- Mischocytharus* Saussure, 1853: viii, footnote in Introduction to Vol. 1. Incorrect original spelling of *Mischocyttarus*.
- Mischocittarus* Saussure, 1857: xi. Incorrect original spelling of *Mischocyttarus*.
- Mischocythorus* Krombein, 1979: 1516. Incorrect subsequent spelling of *Mischocytharus*.
- subgenus *Kappa* Saussure, 1854: 200 (as division of subgenus *Polybia*). Type species *Polybia injucunda* Saussure, 1854. By subsequent designation of Bequaert, 1933: 112.
- subgenus *Phi* Saussure, 1854: 183, explanations to plates 23 and 24 (as division of subgenus *Polybia*). Type species *Vespa phthisica* Fabricius, 1793. By subsequent designation of Bequaert, 1944b: 292. **New status.**
- Monocyttarus* Richards, 1978: vi, 18, 273, 307. Type species *Polybia flavitarsis* Saussure, 1854. Original designation. **New synonymy.**
- subgenus *Omega* Saussure, 1854: 206 (as division of subgenus *Polybia*). Type species *Polybia filiformis* Saussure, 1854. By indication (monotypic).
- Monacanthocnemis* Ducke, 1905: 6, 8, 21. Type species *Polybia filiformis* Saussure, 1854. By indication (monotypic).
- Parapolybia* Saussure, 1854: 207 (as division of subgenus *Polybia*). Type species *Polybia indica* Saussure, 1854. By subsequent designation of Bingham, 1897: 382.
- Pseudopolybia* Saussure, 1863: 237 (as division of genus *Polybia*). Type species *Polybia vespiceps* Saussure, 1863. By indication (monotypic).
- Agelaia* Lepeletier, 1836: 535. Type species *Agelaia fuscicornis* Lepeletier, 1836 (= *Polistes testacea* F., 1804). By indication (monotypic).
- Aglaia* Dalla Torre, 1904: 75. Incorrect subsequent spelling of *Agelaia*.
- Stelopolybia* Ducke, 1910: 452, 464, 517. Type species *Polistes angulata* F., 1804. By subsequent designation of Lucas, 1912: 210. **New synonymy.**
- Gymnopolybia* Ducke, 1914: 316, 317, 327. Type species *Polybia vulgaris* Ducke, 1904 (= *Vespa fulvofasciata* DeGeer, 1773). By subsequent designation of Richards, 1943: 45. **New synonymy.**

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